

Name \_\_\_\_\_ Date \_\_\_\_\_

Biology- Ms. Strang

Homework

**Crosses involving two traits illustrating Mendel's Law of Independent Assortment**

*In the space below each problem, write the genotypes of the parents to be crossed, complete a Punnett square for the cross, and then answer the specific question asked in the problem. Show all work.*

1. In peas, tall is dominant over short and red flower color is dominant over white. If two heterozygous tall, heterozygous red plants are crossed, what is the probability that the offspring will be tall and white?

2. A pea plant heterozygous for smooth seeds and red flowers is crossed with wrinkled seeded, homozygous red plant. What is the probability that the offspring will be heterozygous smooth and heterozygous red?

3. In guinea pigs, rough coat is dominant to smooth coat and black fur color is dominant to white. Cross a homozygous rough coated, homozygous black animal with one that is smooth and white. What will be the appearance of the offspring?